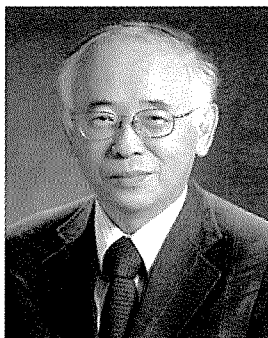


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学会等における活動

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社会における活動

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京都大学数理解析研究所運営委員会委員（平成17年～平成19年）

業 績 目 録

I. 著書・編著

1. 線形代数入門
内田伏一, 高木 斉, 鋌持勝衛, 浦川 肇共著, 1988年10月, 裳華房
2. 変分法と調和写像
浦川 肇著, 1990年11月, 裳華房
3. 線形代数演習
内田伏一, 高木 斉, 鋌持勝衛, 浦川 肇共著, 1992年 5 月, 裳華房
4. Calculus of Variations and Harmonic Maps, 251 pp.
Hajime Urakawa, 1993, American Mathematical Society,
5. 線形代数通論
内田伏一, 浦川 肇共著, 1994年, 裳華房
6. ラプラス作用素とネットワーク
浦川 肇著, 1996年10月, 裳華房
7. 解析入門 ― 級数／複素関数／ベクトル解析
浦川 肇著, 1998年10月, 裳華房
8. 線形代数概説
内田伏一, 浦川 肇共著, 2000年10月, 裳華房
9. 数理システム科学 (初版, 改訂版)
熊原啓作, 砂田利一, 浦川 肇, 志賀徳造共著, 2002年 3 月
(2005年 3 月), 日本放送出版協会
10. 微積分の基礎
浦川 肇著, 2006年12月, 朝倉書店
11. ラプラシアンの幾何と有限要素法
浦川 肇著, 2009年11月, 朝倉書店

II. 研究論文

1. Ichiyama, Toshiyuki, Inoguchi, Jun'ichi and Urakawa, Hajime; Classification and isolation phenomena of bi-harmonic maps and bi-Yang-Mills fields, Note di Matematica, 2009 (発表受理, 印刷中).
2. Urakawa, Hajime; Convergence rates to optimal distribution of the Boltzmann machine on simulated annealing. Interdisciplinary Information Sciences, Vol. 15, no. 2, (2009), 291-299.

3. Ichiyama, Toshiyuki, Inoguchi, Jun'ichi and Urakawa, Hajime, Bi-harmonic maps and bi-Yang-Mills fields, *Note di Matematica*, Vol. 28, suppl. no. 1, (2009), 233–275.
4. Urakawa, Hajime; Compactness of the moduli space of solutions of the Seiberg–Witten equations over higher dimensional compact Kaehler manifolds, *Publicationes Mathematicae Debrecen*, Vol. 74, no. 3–4, (2009), 433–480.
5. Sunada, Toshikazu and Urakawa, Hajime; Ray–Singer zeta functions for compact flat manifolds, *Contemporary Math.*, Amer. Math. Soc., Vol. 484 (2009), 287–294.
6. Jumonji, Masaki and Urakawa, Hajime; The eigenvalue problems for the Laplacian on compact embedded surfaces and three dimensional bounded domains, *Interdisciplinary Information Sciences*, Vol. 14 (2008), 191–223.
7. Jumonji, Masaki and Urakawa, Hajime; Visualization of the eigenvalue problem of the Laplacian on compact embedded surfaces and its applications. In: *Aspects Analytiques de la Geometrie Riemannienne*, Serie Seminaire et Congre, Soc. Math. France, Vol. 19 (2008), 47–91.
8. Barletta, Elisabetta, Dragomir, Sorin and Urakawa, Hajime; Yang–Mills fields on CR manifolds, *J. Math. Physics*, Vol. 47(2006), 083504, 1–41.
9. Urakawa, Hajime; Convergence rates to equilibrium of the heat kernels on compact Riemannian manifolds, *Indiana Univ. Math. J.*, Vol. 55, (2006), 259–288.
10. Bejan, Cornelia–Livia and Urakawa, Hajime; Yang–Mills fields analogue of biharmonic maps, In: *Topics in almost Hermitian geometry and related fields*, World Sci. Publ., Hackensack, NJ, (2005), 41–49.
11. Urakawa, Hajime; The heat kernel and the Green kernel of an infinite graph, *Contemp. Math.*, Amer. Math. Soc., Vol. 347, (2004), 245–258.
12. Urakawa, Hajime; The Dirichlet eigenvalue problem, the finite element method and graph theory, *Contemp. Math.*, Amer. Math. Soc., Vol. 348, (2004), 221–232.
13. Urakawa, Hajime; Yang–Mills theory over compact symplectic manifolds, *Ann. Global Anal. Geom.*, Vol. 25, no. 4, (2004), 365–402.
14. Park, Joon–Sik and Urakawa, Hajime; Yang–Mills connections in homogeneous principal fibre bundles, *International J. Pure Appl. Math.* Vol. 10, no. 1, (2004), 79–90.

15. Urakawa, Hajime; The Cheeger constant, the heat kernel, and the Green kernel of an infinite graph, *Monatsh. Math.*, Vol. 138, no. 3, (2003), 225–237.
16. Dragomir, Sorin, Ichiyama, Toshiyuki and Urakawa, Hajime; Yang–Mills theory and conjugate connections, *Differential Geom. Appl.* Vol. 18, no. 2, (2003), 229–238.
17. Urakawa, Hajime; Yang–Mills theory in Einstein–Weyl geometry and affine differential geometry. *Rev. Bull. Calcutta Math. Soc.*, Vol. 10, no. 1–2, (2002), 7–18.
18. Matsuura, Nozomu and Urakawa, Hajime; Discrete improper affine spheres, *J. Geom. Phys.* 45, no. 1–2, (2003), 164–183.
19. Barletta, Elisabetta, Dragomir, Sorin and Urakawa, Hajime; Pseudoharmonic maps from nondegenerate CR manifolds to Riemannian manifolds, *Indiana Univ. Math. J.*, Vol. 50, no. 2, (2001), 719–746.
20. Urakawa, Hajime; A discrete analogue of the harmonic morphism and Green kernel comparison theorems, *Glasgow Math. J.*, Vol. 42, no. 3, (2000), 319–334.
21. Urakawa, Hajime; The spectrum of an infinite graph, *Canadian J. Math.*, Vol. 52, no. 5, (2000), 1057–1084.
22. Dragomir, Sorin and Urakawa, Hajime; On the inhomogeneous Yang–Mills equation, *Interdiscip. Inform. Sci.*, Vol. 6, no. 1, (2000), 41–52.
23. Urakawa, Hajime; A discrete analogue of the harmonic morphism. In: *Harmonic morphisms, harmonic maps, and related topics*, Chapman & Hall/CRC Res. Notes Math., No. 413, Chapman & Hall/CRC, Boca Raton, FL, (2000), 97–108,
24. Ichiyama, Toshiyuki, Furuhashi, Hitoshi and Urakawa, Hajime; A conformal gauge invariant functional for Weyl structures and the first variation formula, *Tsukuba J. Math.*, Vol. 23, no. 3, (1999), 551–564.
25. Urakawa, Hajime; On invariant projectively flat affine connections, *Hokkaido Math. J.*, Vol. 28, no. 2, (1999), 333–356.
26. Urakawa, Hajime; Eigenvalue comparison theorems of the discrete Laplacians for a graph, *Geometriae Dedicata*, Vol. 74, no. 1, (1999), 95–112.
27. Katsuda, Atsushi and Urakawa, Hajime; The Faber–Krahn type isoperimetric inequalities for a graph, *Tohoku Math. J.*, Vol. 51, no. 2, (1999), 267–281.

28. Urakawa, Hajime; Spectra of the discrete and continuous Laplacians on graphs and Riemannian manifolds, *Interdiscip. Inform. Sci.* Vol. 3, no. 2, (1997), 95–109.
29. Suzuki, Yuuichi and Urakawa, Hajime; Eigenvalue pinching theorems on compact symmetric spaces, *Proc. Amer. Math. Soc.* Vol. 126, no. 10, (1998), 3065–3069.
30. Katsuda, Atsushi and Urakawa, Hajime; The first eigenvalue of the discrete Dirichlet problem for a graph, *J. Combinatorial Math. Combinatorial Computing*, Vol. 27 (1998), 217–225.
31. Urakawa, Hajime; Yang–Mills connections and deformation theory over compact strongly pseudoconvex CR manifolds, In: *Geometric complex analysis*, World Sci. Publishing, River Edge, NJ, (1996), 635–652,.
32. Urakawa, Hajime; Heat kernel and Green kernel comparison theorems for infinite graph, *J. Functional Analysis*, Vol. 146, no. 1, (1997), 206–235.
33. Dai, Yu–Jie, Shoji, Michihiko and Urakawa, Hajime; Harmonic maps into Lie groups and homogeneous spaces, *Differential Geom. Appl.*, Vol. 7, no. 2, (1997), 143–160.
34. Urakawa, Hajime; Self–dual connections of homogeneous principal bundles over quaternionic Kaehler symmetric spaces. *Tsukuba J. Math.* Vol. 20, no. 2, (1996), 387–397.
35. Ohno, Yoshiki and Urakawa, Hajime; On the first eigenvalue of the combinatorial Laplacian for a graph, *Interdiscip. Inform. Sci.*, Vol. 1, no. 1, (1994), 33–46.
36. Urakawa, Hajime; Spectrum of the Jacobi operator on a minimal hypersurface of the Euclidean space, In: *Geometry and its applications*, World Sci. Publishing, River Edge, NJ, (1993), 257–268.
37. Urakawa, Hajime, Variational problems over strongly pseudoconvex CR manifolds, In: *Differential geometry*, World Sci. Publishing, River Edge, NJ, (1993), 233–242,.
38. Nayatani, Shin and Urakawa, Hajime; Morse indices of Yang–Mills connections over the unit sphere, *Compositio Math.*, Vol. 98, no. 2, (1995), 177–192.
39. Matsuura, Fumiaki and Urakawa, Hajime; On exponential Yang–Mills connections, *J. Geom. Phys.*, Vol. 17, no. 1, (1995), 73–89.

40. Urakawa, Hajime; Yang–Mills connections over compact strongly pseudoconvex CR manifolds. *Math. Z.*, Vol. 216, no. 4 (1994), 541–573.
41. Urakawa, Hajime and Ueno, Keisuke; Equivariant harmonic maps associated to large group actions, *Tokyo J. Math.*, Vol. 17, no. 2, (1994), 417–437.
42. Urakawa, Hajime; Geometry of Laplace–Beltrami operator on a complete Riemannian manifold, *Adv. Studies in Pure Math.*, Vol. 22, (1993), 347–406.
43. Nayatani, Shin and Urakawa, Hajime; Spectrum of the Schroedinger operator on a complete manifold, *J. Functional Analysis*, Vol. 112, no. 2, (1993), 459–479.
44. Urakawa, Hajime; Equivariant harmonic maps between compact Riemannian manifolds of cohomogeneity 1, *Michigan Math. J.*, Vol. 40, no. 1, (1993), 27–51.
45. Park, Joon–Sik and Urakawa, Hajime; Classification of harmonic mappings of constant energy density into spheres, *Geometriae Dedicata*, Vol. 37, no. 2, (1991), 211–226.
46. Urakawa, Hajime, Spectra of Riemannian manifolds without focal points. In: *Geometry of manifolds, Perspect. Math.*, 8, Academic Press, Boston, MA, (1989), 435–443.
47. Urakawa, Hajime; Equivariant theory of Yang–Mills connections over Riemannian manifolds of cohomogeneity one, *Indiana Univ. Math. J.*, Vol. 37, no. 4, (1988), 753–788.
48. Urakawa, Hajime; Spectral geometry of the second variation operator of harmonic maps, *Illinois J. Math.* Vol. 33, no. 2, (1989), 250–267.
49. Urakawa, Hajime; Stability of harmonic maps, *Sugaku Expositions* Vol. 1, no. 1, (1988), 113–137. (Japanese) *Sugaku* 38 (1986), no. 3, 249–264.
50. Urakawa, Hajime; Stability of harmonic maps and eigenvalues of the Laplacian, *Trans. Amer. Math. Soc.*, Vol. 301, no. 2, (1987), 557–589.
51. Urakawa, Hajime; Stability of harmonic maps and eigenvalues of Laplacian. Curvature and topology of Riemannian manifolds, *Lecture Notes in Math.*, No. 1201, Springer, Berlin, (1986), 285–307.
52. Urakawa, Hajime; Indices and nullities of Yang–Mills fields, *Proc. Amer. Math. Soc.*, Vol. 98, no. 3, (1986), 475–479.

53. Urakawa, Hajime; The first eigenvalue of the Laplacian for a positively curved homogeneous Riemannian manifold, *Compositio Math.*, Vol. 59, no. 1, (1986), 57–71.
54. Urakawa, Hajime; Spectra of some domains in compact Lie groups and their applications, *Proc. Amer. Math. Soc.*, Vol. 97, no. 4, (1986), 717–723.
55. Urakawa, Hajime; Minimal immersions of projective spaces into spheres, *Tsukuba J. Math.*, Vol. 9, no. 2, (1985), 321–347.
56. Urakawa, Hajime; Reflection groups and the eigenvalue problems of vibrating membranes with mixed boundary conditions, *Tohoku Math. J.*, Vol. 36, no. 2, (1984), 175–183.
57. Urakawa, Hajime; Numerical computations of the spectra of the Laplacian on 7-dimensional homogeneous manifolds $SU(3)/T(k)$, *SIAM J. Math. Anal.*, Vol. 15, no. 5, (1984), 979–987.
58. Urakawa, Hajime; Lower bounds for the eigenvalues of the fixed vibrating membrane problems, *Tohoku Math. J.*, Vol. 36, no. 2, (1984), 185–189.
59. Muto, Hideo, Ohnita, Yoshihiro and Urakawa, Hajime; Homogeneous minimal hypersurfaces in the unit spheres and the first eigenvalues of their Laplacian, *Tohoku Math. J.*, Vol. 36, no. 2, (1984), 253–267.
60. Bando, Shigetoshi and Urakawa, Hajime; Generic properties of the eigenvalue of the Laplacian for compact Riemannian manifolds, *Tohoku Math. J.*, Vol. 35, no. 2, (1983), 155–172.
61. Urakawa, Hajime; Bounded domains which are isospectral but not congruent, *Ann. Sci. l'Ecole Norm. Sup. (4)*, Vol. 15, no. 3, (1982), 441–456.
62. Takenaka, Shigeo, Kubo, Izumi and Urakawa, Hajime; Brownian motion parametrized with metric space of constant curvature, *Nagoya Math. J.*, Vol. 82, (1981), 131–140.
63. Urakawa, Hajime; Complex Laplacians on compact complex homogeneous spaces, *J. Math. Soc. Japan*, Vol. 33, no. 4, (1981), 619–638.
64. Muto, Hideo and Urakawa, Hajime; On the least positive eigenvalue of Laplacian for compact homogeneous spaces, *Osaka J. Math.*, Vol. 17, no. 2, (1980), 471–484.
65. Urakawa, Hajime; On the least positive eigenvalue of the Laplacian for the compact quotient of a certain Riemannian symmetric space, *Nagoya Math. J.*, Vol. 78, (1980), 137–152.

66. Urakawa, Hajime; On the least positive eigenvalue of the Laplacian for compact group manifolds, *J. Math. Soc. Japan*, Vol. 31, no. 1, (1979), 209–226.
67. Urakawa, Hajime; On the least positive eigenvalue of the Laplacian for Riemannian manifolds, *Proc. Japan Acad. Ser. A Math. Sci.*, Vol. 53, no. 7, (1977), 229–231.
68. Urakawa, Hajime; Analytic torsion of space forms of certain compact symmetric spaces, *Nagoya Math. J.*, Vol. 67, (1977), 65–88.
69. Urakawa, Hajime; On the Hardy class of harmonic sections and vector-valued Poisson integrals, *Osaka J. Math.*, Vol. 12, (1975), 117–137.
70. Urakawa, Hajime; The heat equation on compact Lie group, *Osaka J. Math.*, Vol. 12, no. 2, (1975), 285–297.
71. Urakawa, Hajime; Radial convergence of Poisson integrals on symmetric bounded domains of tube type, *Osaka J. Math.*, Vol. 10, (1973), 93–113.

